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## Patent Abstracts of Japan

PUBLICATION NUMBER : 61116760  
PUBLICATION DATE : 04-06-86

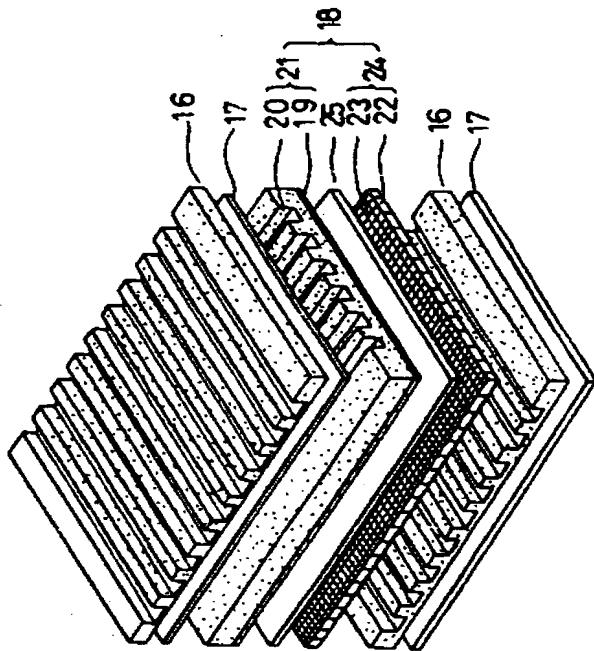
APPLICATION DATE : 12-11-84  
APPLICATION NUMBER : 59237989.

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INT.CL. : H01M 8/02 H01M 8/24

TITLE : FUEL CELL



**ABSTRACT :** PURPOSE: To suppress decrease in cell performance and cell life of a stacked body by using a stacked body of the first stacking element comprising a porous carbon substrate, having grooves on its one side, free from a warp, and the second stacking element which is gas nonpermeable and electric conductive.

**CONSTITUTION:** A stacked body is formed by stacking the first stacking element 16 comprising a porous carbon substrate having grooves on its one side which forms passages of a positive active material and the second stacking element 17 comprising a gas nonpermeable and electric conductive flat carbon plate which separates mixing of negative and positive active materials. A unit cell 18 placed between the stacked elements 16 and 17 is formed by bonding a negative electrode 21 comprising a porous carbon substrate 20 in which negative active material supply grooves are formed on one side and a catalyst layer 19 is carried on the other side, and a positive electrode 24 comprising a porous carbon substrate plate, thinner than the negative electrode 21, to which water repellent treatment is conducted and in which diffusion of positive active material such as air is easy and a catalyst layer 23 is carried on its one side through a matrix layer 25 containing electrolyte.

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